UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/624,963	07/25/2000	Paul Turquand Keyser	YOR9-2000-0048	7040

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EXAMINER
BURGE, LONDRA C

ART UNIT	PAPER NUMBER
2178	

DATE MAILED: 04/05/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	**Applicant(s)**
Office Action Summary	09/624,963	KEYSER ET AL.
	Examiner	**Art Unit**	
	Londra C Burge	2178	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM
THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed
  after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any
  earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>16 January 2004</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is

   closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-25</u> is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-4, 11, 19 , and 23-25</u> is/are rejected.

7)☒ Claim(s) <u>5-10, 12-18, and 20-22</u> is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on <u>16 January 2004</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage

      application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
   Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
   Paper No(s)/Mail Date. _____ .

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications: amendment filed 1/16/2004 to the application filed 7/25/2000.

2.   In the amendment: claims 1-25 are pending and claims 1, 24 and 25 are independent claims

Drawings

3.   The drawings were received on 1/16/2004. These drawings are accepted.

Allowable Subject Matter

4.   Claims 5-10, 12-18 and 20-22 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claim Rejections - 35 USC § 103

5.   **The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:**

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6.   **Claims 1-4, and 24-25 remain rejected under 35 U.S.C. 103(a) as being unpatentable over Michelman et al. (herein after Michelman), U.S. Patent No. 6,128,633 filed March 1997 issued October 2000 in view of Ruedisueli et al (herein after Ruedisueli), U.S. Patent No. 5,838,819 filed November 1995 issued November 1998.**

In regard to independent claim 1, Michelman teaches of "A system for manipulating

page-breaks in an electronic document. A User Interface Process provides a graphical user

interface allowing a user to select a page-break within an electronic document and then identify

a new location for the page-break. (Michelman Abstract Lines 1-5).

Michelman does not specifically teach of a obtaining the data from a handwriting system.

However, Ruedisueli teaches of a system includes a processor for processing the handwritten

notes to generate the electronic copies, with each electronic copy associated with a respective

identifier corresponding to at least one set of the respective handwritten notes, in which the

identifiers facilitate the management of the electronic copies. The system includes an electronic

notepad and can also include devices operatively connected to the electronic notepad for

operating with the electronic notepad to receive, manage, merge, and/or display the electronic

copies from the electronic notepad. (Ruedisueli Abstract Lines 2-12; compare with claim 1,

"...obtaining electronic ink data from the handwriting system, the ink data being associated with

the electronic document; and automatically identifying, using at least a portion of the electronic

ink data, one or more potential page breaks for possible insertions in the electronic document to

maintain a page correspondence between the electronic document and a physical document also

generated in accordance with the handwriting system."). It would have been obvious to one of

ordinary skill at the time of the invention to apply Ruedisueli to Michelman, providing

Michelman the benefit of adding and electronic notepad that include devices operatively

connected to the electronic notepad for operating with the electronic notepad to receive, manage,

merge, and/or display the electronic copies from the electronic notepad as taught by Ruedisueli

Abstract Lines 8-12 to the automatic page break pagination which performs the steps of moving

the selected page break to the new location and adjusting the remainder of the document to accommodate the page-break at the new location as taught by Michelman Col 4 Lines 45-49.

In regard to dependent claim 2, Michelman does not specifically teach of a handwriting system being a personal digital notepad. However, Ruedisueli teaches that the system includes an electronic notepad and can also include devices operatively connected to the electronic notepad for operating with the electronic notepad to receive, manage, merge, and/or display the electronic copies from the electronic notepad. (Ruedisueli Abstract Lines 8-12; compare with claim 2, *"...the handwriting system is a personal digital notepad.")*. It would have been obvious to one of ordinary skill at the time of the invention to apply Ruedisueli to Michelman, providing Michelman the benefit of having a system includes an electronic notepad and can also include devices operatively connected to the electronic notepad for operating with the electronic notepad to receive, manage, merge, and/or display the electronic copies from the electronic notepad as taught by Ruedisueli Abstract Lines 8-12.

In regard to dependent claim 3, Michelman teaches of "A System Process performs the steps of moving the selected page-break to the new location and adjusting the scaling and the automatic page-breaks for the remainder of the document to accommodate the page-break at the new location. (Michelman Abstract Lines 5-9; compare with claim 3, *"...automatically inserting the one or more identified potential page breaks in the electronic document"*).

In regard to independent claim 4, Michelman teaches, "A User Interface Process provides a graphical user interface allowing a user to select a page-break within an electronic document and then identify a new location for the page-break." (Michelman Abstract 2-5; compare with claim 4, *"...presenting the one or more identified potential page breaks to a user*

for approval to automatically insert the one or more identified potential page breaks in the electronic document.")

In regard to independent claim 24, claim 24 incorporates substantially similar subject matter as claimed in claim 1, and in further view of the following, is rejected along the same rationale.

Michelman teaches that the "program modules may be physically located in different local and remote memory storage devices." (Michelman Column 6 Lines 32-34; compare with claim 24; *"...a memory")*. Michelman also teaches that "Moreover, those skilled in the art will appreciate that the invention may be practiced with other computer system configurations, including hand-held devices, multiprocessor systems, microprocessor-based or programmable consumer electronics, minicomputers, mainframe computers, and the like." (Michelman Column 7 Lines 48-53; compare with claim 24, *"...at least one processor").*

In regard to independent claim 25, claim 25 reflects similar subject matter as claimed in claim 1 and is rejected along the same rationale.

7. **Claim 11, is rejected under 35 U.S.C. 103(a) as being unpatentable over Michelman et al. (herein after Michelman) in view of Ruedisueli et al. as applied to claim 1, and in further view of Forcier, U.S. Patent No. 6,502,114 B1 filed October 1998 issued December 2002 and in further view of Johari at al. (herein after Johari), U.S. Patent No. 5,911,146 filed May 1996 issued June 1999.**

In regard to dependent claim 11, Michelman does not specifically teach of an insertion point. However, Johari teaches of "A modification or perturbation is a randomly selected

change to one of the values defining the candidate solution. For example, a page break in the advertisement stream can be changed by randomly selecting one page break to delete and/or randomly selecting a page break to insert in the advertisement stream. (Johari Column 6 Lines 19-24; compare with claim 11, *"...a confidence measure for the potential page break associated with the possible insertion point.")* It would have been obvious to one of ordinary skill at the time of the invention to apply Johari to Michelman, providing Michelman the benefit of determining a confidence measure for a potential page break insertion that can be randomly selected.

8.   **Claim 19 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michelman et al. in view of Ruedisueli et al. as applied in claim 1, and in further view of Mishra et al. (herein after Mishra), U.S. Patent No. 5,805,118 filed December 1995 issued September 1998.**

In regard to dependent claim 19, Michelman does not specifically teach of a learning algorithm. However, Mishra teaches of a Display Protocol Specification and Learning Algorithm (Mishra Column 8 Line 4; compare with claim 19, *"... identifying one or more potential page breaks further comprises the steps of utilizing a learning algorithm.")* It would have been obvious to one of ordinary skill in the art at the time of the invention to apply Mishra to Michelman, providing Michelman the benefit of utilizing a learning algorithm.

9.   **Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Michelman et al. in view of Ruedisueli et al. as applied to claims 1, 5 and 6, in further view of Forcier et**

al. as applied to claims 1,5, and 7, and in further view of Nakai et al. (herein after Nakai),

U.S. Patent No. 5,909,221 filed December 1995 issued June 1999 and in further view of

Johari at al. (herein after Johari), U.S. Patent No. 5,911,146 filed May 1996 issued June

1999.

In regard to dependent claim 23, Michelman does not explain the scoring procedure.

However, Johari teaches of "A computer-based system for automatic pagination and layout of

yellow pages or a commercial telephone directory uses a simulated annealing heuristic to refine

a randomly determined candidate solution. The text and advertisements which are to be

included in the yellow pages directory are ordered in two distinct data streams representing the

order of text and the order of advertisements in the directory. The system determines a possible

layout, called a candidate solution, by randomly setting parameters defining the pagination and

layout. These parameters may include page breaks in the advertisement stream, column

numbers for each advertisement, and an amount of padding or empty space to be added to each

page. Once the parameters are set, the individual pages are laid out by putting the

advertisements in the next available position in their assigned columns, and the text around the

advertisements. The solution is scored based upon the guidelines for the format and layout of

the yellow pages directory. The solution is then optimized using a simulated annealing

heuristic, which utilizes small modifications or perturbations randomly made to the initial

parameters of the candidate solution. The revised solution is scored and compared to the score

of the prior solution. The revised solution is then kept according to a probabilistic formula

relating the two scores. Through an iterative process of perturbations, scoring, and comparing,

the candidate solution becomes optimized. The process is repeated multiple times for different

initial candidate solutions, each of which is randomly determined. A best solution is then

selected from all of the optimized candidate solutions." (Johari Abstract Lines 1-30; compare

with claim 23, *"...automatically identifying one or more potential page breaks further*

comprises the step of identifying a potential page break as a point offset from a possible

insertion point determined in accordance with a scoring procedure." In would have been

obvious to one of ordinary skill at the time of the invention to apply Johari to Michelman,

providing Michelman the benefit of applying the scoring procedure to the page breaks.

Response to Arguments

10.   **Applicant's arguments filed 16 January 2004 have been fully considered but are not**

deemed persuasive. Applicant makes the following arguments:

Regarding claims 1, 24 and 25 Applicant argues that there is lack of motivation as to why

Michelman would be combined with Ruedisueli Michelman would be motivated to add to the

electronic notepad, which includes devices operatively connected to the electronic notepad for

operating with the electronic notepad to receive, manage, merge, and/or display the electronic

copies from the electronic notepad as taught by Ruedisueli Abstract Lines 8-12 to the automatic

page break pagination which performs the steps of moving the selected page break to the new

location and adjusting the remainder of the document to accommodate the page-break at the new

location as taught by Michelman Col 4 Lines 45-49.

Regarding claim 2, Ruedisueli teaches that the system includes an electronic notepad and

can also include devices operatively connected to the electronic notepad for operating with the

electronic notepad to receive, manage, merge, and/or display the electronic copies from the

electronic notepad. (Ruedisueli Abstract Lines 8-12; compare with claim 2, *"...the handwriting system is a personal digital notepad."*).

Regarding claim 3, Michelman teaches of "A System Process performs the steps of moving the selected page-break to the new location and adjusting the scaling and the automatic page-breaks for the remainder of the document to accommodate the page-break at the new location. (Michelman Abstract Lines 5-9; compare with claim 3, *"...automatically inserting the one or more identified potential page breaks in the electronic document"*).

Regarding claim 4, Michelman teaches, "A User Interface Process provides a graphical user interface allowing a user to select a page-break within an electronic document and then identify a new location for the page-break." (Michelman Abstract 2-5; compare with claim 4, *"...presenting the one or more identified potential page breaks to a user for approval to automatically insert the one or more identified potential page breaks in the electronic document."*)

Regarding claim 11, Michelman does not specifically teach of an insertion point. However, Johari teaches of "A modification or perturbation is a randomly selected change to one of the values defining the candidate solution. For example, a page break in the advertisement stream can be changed by randomly selecting one page break to delete and/or randomly selecting a page break to insert in the advertisement stream. (Johari Column 6 Lines 19-24; compare with claim 11, *"...a confidence measure for the potential page break associated with the possible insertion point."*) It would have been obvious to one of ordinary skill at the time of the invention to apply Johari to Michelman, providing Michelman the benefit

of determining a confidence measure for a potential page break insertion that can be randomly

selected.

Regarding claim 19, Michelman does not specifically teach of a learning algorithm.

However, Mishra teaches of a Display Protocol Specification and Learning Algorithm (Mishra

Column 8 Line 4; compare with claim 19, *"... identifying one or more potential page breaks

further comprises the steps of utilizing a learning algorithm.")* It would have been obvious to

one of ordinary skill in the art at the time of the invention to apply Mishra to Michelman,

providing Michelman the benefit of utilizing a learning algorithm.

Regarding claim 23, Michelman does not explain the scoring procedure. However, Johari

teaches of "A computer-based system for automatic pagination and layout of yellow pages or a

commercial telephone directory uses a simulated annealing heuristic to refine a randomly

determined candidate solution. The text and advertisements which are to be included in the

yellow pages directory are ordered in two distinct data streams representing the order of text

and the order of advertisements in the directory. The system determines a possible layout,

called a candidate solution, by randomly setting parameters defining the pagination and layout.

These parameters may include page breaks in the advertisement stream, column numbers for

each advertisement, and an amount of padding or empty space to be added to each page. Once

the parameters are set, the individual pages are laid out by putting the advertisements in the next

available position in their assigned columns, and the text around the advertisements. The

solution is scored based upon the guidelines for the format and layout of the yellow pages

directory. The solution is then optimized using a simulated annealing heuristic, which utilizes

small modifications or perturbations randomly made to the initial parameters of the candidate

solution. The revised solution is scored and compared to the score of the prior solution. The

revised solution is then kept according to a probabilistic formula relating the two scores.

Through an iterative process of perturbations, scoring, and comparing, the candidate solution

becomes optimized. The process is repeated multiple times for different initial candidate

solutions, each of which is randomly determined. A best solution is then selected from all of

the optimized candidate solutions." (Johari Abstract Lines 1-30; compare with claim 23,

"...automatically identifying one or more potential page breaks further comprises the step of

identifying a potential page break as a point offset from a possible insertion point determined in

accordance with a scoring procedure." In would have been obvious to one of ordinary skill at

the time of the invention to apply Johari to Michelman, providing Michelman the benefit of

applying the scoring procedure to the page breaks.

For all of the above reasons, the rejection of claims 1, 2, 3, 4, 11, 19, and 23-25 are

maintained.

Conclusion

11.   **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time

policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE

MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after

the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37

CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Londra C Burge whose telephone number is 703-305-8784. The examiner can normally be reached on 8:30am to 5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on 703-308-5186. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Londra C. Burge
3/26/2004

STEPHEN S. HONG
PRIMARY EXAMINER